Memorandum

To: **Tim Lannon, Village Engineer, Chagrin Falls**

From: **Joyce Bond**

Subject: ***North Street Improvements – Sidewalk Options***

Date: **April 19, 2010**

Summary of Street Characteristics

East Side – The proposed sidewalk will begin at High Street and extend north. Several above ground utility structures are located on this side of the street. Utility poles are spaced about 130 feet to 150 feet. Fire hydrants are located about every 300 feet and water valves are located relative to the individual services. A Sanitary manhole is located near Station 19+00. Individual mailboxes are located at the end of each of the driveways. The open space at the corner has multiple trees planted in the right-of-way. Trees and planting beds are occasionally found in the right-of-way with the majority of the planting within the property line except at the northern 250 feet of the project. Homes are set back away from the right-of-way typically forty (40) feet or more. Much of the land on this side rises noticeably away from the road pavement. This results in additional need for retaining walls, consideration for existing retaining walls and reinstallation of stepped sidewalks to the street. Retaining walls will be needed in the areas between Sta. 17+00 to 18+00 and Sta. 28+00 to Sta. 29+50. Several other areas will require some general reshaping and grading. The grades for the sidewalks will follow the grades for the existing road. Some areas will be above a 1:12 slope.

West Side - The proposed sidewalk will begin at E. Cottage Street. and extend north except for a section from Summit Street north for about 200 feet which will be installed as part of the Falls Walk Subdivision construction. Light poles are located only between E. Cottage Street and Summit Street. Water valves are located at various locations along the road and mailboxes are located+ at the end of each of the driveways. The homes on this side of the street are typically only a couple of feet different in elevation than the roadway. The location of the houses, however is typically much closer to the right-of-way than the east side. Between Sta. 19+00 to Sta. 22+50 several of the homes are less than ten feet from the right-of-way. In these situations, trees, shrub beds, parking spaces and fences are located in the right-of-way itself. About 200 feet of sidewalk will be installed on this side of the street per requirements for the Falls Walk Subdivision.

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CT Consultants
engineers | architects | planners

8150 Sterling Court
Mentor, Ohio 44060
phone: 440.951.9000
fax: 440.951.7487
www.ctconsultants.com

NORTH STREET IMPROVEMENTS
CHAGRIN FALLS, OHIO
PRELIMINARY OPINION OF PROBABLE COST - OPTION 1
5-Mar-2010

ITEM DESCRIPTION	Qty	Unit	Cost		Total
West side					
4" concrete sidewalk with 1.5" granular base, residential	7690	S.F.	$5.00	$	38,450.00
6" concrete sidewalk with 1.5" granular base, through residential aprons	2060	S.F.	$7.00	$	14,420.00
Tree removal, 3" size	2	EACH	$200.00	$	400.00
Tree removal, 6" size	1	EACH	$350.00	$	350.00
Tree removal, 9" size	0	EACH	$475.00	$	-
Tree removal, 12" size	0	EACH	$550.00	$	-
Tree removal, 18" size	2	EACH	$650.00	$	1,300.00
Tree removal, 30" size	0	EACH	$1,000.00	$	-
Tree removal, 48" size	0	EACH	$1,500.00	$	-
Shrub removed, APP	20	EACH	$100.00	$	2,000.00
Curb Ramp	3	EACH	$2,500.00	$	7,500.00
Interlocking Block Retaining Wall	0	S.F.	$45.00	$	-
Walk and steps Removed & Replaced	100	S.F.	$25.00	$	2,500.00
lawn restoration	1250	S.Y.	$4.00	$	5,000.00
removal and relocation of fence	50	L.F.	$30.00	$	1,500.00
shrub bed reconfiguration and mulching	0	S.F.		$	-
reset garden wall	20	L.F.	$25.00	$	500.00
stone parking area reconfiguration	200	S.F.	$10.00	$	2,000.00
sign removal and reuse	2	EACH	$50.00	$	100.00
striping	165	L.F.	$3.00	$	495.00
pedestrian signage allowance	2	EACH	$125.00	$	250.00
tree maintenance and protection	1	LUMP	$1,500.00	$	1,500.00
adjust casting to grade	2	EACH	$400.00	$	800.00
grading adjustment	1	LUMP	$50,000.00	$	50,000.00
			SUBTOTAL	***$***	***129,065.00***
Contingency (20%)				$	25,813.00
Engineering/Inspection (25%)				$	193,597.50

ITEM DESCRIPTION	Qty	Unit	Cost		Total
East side					
4" concrete sidewalk with 1.5" granular base, residential	6860	S.F.	$5.00	$	34,300.00
6" concrete sidewalk with 1.5" granular base, through residential aprons	2140	S.F.	$7.00	$	14,980.00
Tree removal, 3" size	8	EACH	$200.00	$	1,600.00
Tree removal, 6" size	3	EACH	$350.00	$	1,050.00
Tree removal, 9" size	5	EACH	$475.00	$	2,375.00
Tree removal, 12" size	5	EACH	$550.00	$	2,750.00
Tree removal, 18" size	3	EACH	$550.00	$	1,650.00
Tree removal, 30" size	0	EACH	$1,000.00	$	-
Tree removal, 48" size	0	EACH	$1,500.00	$	-
Shrub removed, APP	9	EACH	$100.00	$	900.00
Curb Ramp	2	EACH	$1,000.00	$	2,000.00
Interlocking Block Retaining Wall	1500	S.F.	$45.00	$	67,500.00
Walk and steps Removed and replaced	210	S.F.	$25.00	$	5,250.00
lawn restoration	1500	S.Y.	$4.00	$	6,000.00
removal and relocation of fence	0	L.F.	$0.00	$	-
shrub bed reconfiguration and mulching	120	S.F.	$22.00	$	2,640.00
reset garden wall	0	L.F.	$25.00	$	-
stone parking area reconfiguration	0	S.F.	$10.00	$	-
sign removal and reuse	2	EACH	$50.00	$	100.00
striping	100	L.F.	$3.00	$	300.00
pedestrian signage allowance	2	EACH	$125.00	$	250.00
tree maintenance and protection	1	LUMP	$1,500.00	$	1,500.00
removal of timber curb	60	L.F.	$6.00	$	360.00
adjust casting to grade	2	EACH	$400.00	$	800.00
grading adjustment	1	LUMP	$50,000.00	$	50,000.00
			SUBTOTAL	***$***	***196,305.00***
Contingency (20%)				$	39,261.00
Engineering/Inspection (25%)				$	294,457.50

NORTH STREET IMPROVEMENTS
CHAGRIN FALLS, OHIO
PRELIMINARY OPINION OF PROBABLE COST - OPTION 2
5-Mar-2010

ITEM DESCRIPTION	Qty	Unit	Cost		Total
West side					
4" concrete sidewalk with 1.5" granular base, residential	7690	S.F.	$5.00	$	38,450.00
6" concrete sidewalk with 1.5" granular base, through residential aprons	2060	S.F.	$7.00	$	14,420.00
Tree removal, 3" size	2	EACH	$200.00	$	400.00
Tree removal, 6" size	1	EACH	$350.00	$	350.00
Tree removal, 9" size	0	EACH	$475.00	$	-
Tree removal, 12" size	0	EACH	$550.00	$	-
Tree removal, 18" size	2	EACH	$650.00	$	1,300.00
Tree removal, 30" size	0	EACH	$1,000.00	$	-
Tree removal, 48" size	0	EACH	$1,500.00	$	-
Shrub removed, APP	20	EACH	$100.00	$	2,000.00
Curb Ramp	3	EACH	$2,500.00	$	7,500.00
Interlocking Block Retaining Wall	0	S.F.	$45.00	$	-
Walk and steps Removed & Replaced	100	S.F.	$25.00	$	2,500.00
lawn restoration	1250	S.Y.	$4.00	$	5,000.00
removal and relocation of fence	50	L.F.	$30.00	$	1,500.00
shrub bed reconfiguration and mulching	0	S.F.	$22.00	$	-
reset garden wall	20	L.F.	$25.00	$	500.00
stone parking area reconfiguration	200	S.F.	$10.00	$	2,000.00
sign removal and reuse	2	EACH	$50.00	$	100.00
striping	165	L.F.	$3.00	$	495.00
pedestrian signage allowance	2	EACH	$125.00	$	250.00
tree maintenance and protection	1	LUMP	$1,500.00	$	1,500.00
adjust casting to grade	2	EACH	$400.00	$	800.00
minor grading adjustment	1	LUMP	$50,000.00	$	50,000.00
			SUBTOTAL	***$***	***129,065.00***
Contingency (20%)				$	25,813.00
Engineering/Inspection (25%)				$	193,597.50
East side					
4" concrete sidewalk with 1.5" granular base, residential	7710	S.F.	$5.00	$	38,550.00
6" concrete sidewalk with 1.5" granular base, through residential aprons	2145	S.F.	$7.00	$	15,015.00
Tree removal, 3" size	11	EACH	$200.00	$	2,200.00
Tree removal, 6" size	3	EACH	$350.00	$	1,050.00
Tree removal, 9" size	6	EACH	$475.00	$	2,850.00
Tree removal, 12" size	9	EACH	$550.00	$	4,950.00
Tree removal, 18" size	3	EACH	$550.00	$	1,650.00
Tree removal, 30" size	1	EACH	$1,000.00	$	1,000.00
Tree removal, 48" size	1	EACH	$1,500.00	$	1,500.00
Shrub removed, APP	16	EACH	$100.00	$	1,600.00
Curb Ramp	2	EACH	$1,000.00	$	2,000.00
Interlocking Block Retaining Wall	265	S.F.	$45.00	$	11,925.00
Walk and steps Removed & replaced	185	S.F.	$25.00	$	4,625.00

ITEM DESCRIPTION	Qty	Unit	Cost		Total
lawn restoration	1500	S.Y.	$4.00	$	6,000.00
removal and relocation of fence	0	L.F.	$0.00	$	-
shrub bed reconfiguration and mulching	120	S.F.	$22.00	$	2,640.00
reset garden wall	0	L.F.	$25.00	$	-
stone parking area reconfiguration	0	S.F.	$10.00	$	-
sign removal and reuse	2	EACH	$50.00	$	100.00
striping	100	L.F.	$3.00	$	300.00
pedestrian signage allowance	2	EACH	$125.00	$	250.00
tree maintenance and protection	1	LUMP	$1,500.00	$	1,500.00
removal of timber curb	60	L.F.	$6.00	$	360.00
adjust casting to grade	2	EACH	$400.00	$	800.00
relocate fire hydrant	1	EACH	$1,250.00	$	1,250.00
minor grading adjustment	1	LUMP	$50,000.00	$	50,000.00
			SUBTOTAL	***$***	***152,115.00***
Contingency (20%)				$	30,423.00
Engineering/Inspection (25%)				$	228,172.50